UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,780	03/16/2001	Gregory S. Fisher	2001-0153	9166

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ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
Office Action Summary	09/810,780	FISHER, GREGORY S.
	Examiner	**Art Unit**	
	Andrew C Lee	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *16 March 2001*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 - 22* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1 - 22* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(b)

because they are incomplete.   37 CFR 1.83(b) reads as

follows:

> When the invention consists of an improvement on an old machine the
> drawing must when possible exhibit, in one or more views, the
> improved portion itself, disconnected from the old structure, and
> also in another view, so much only of the old structure as will
> suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are

required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is

being amended. The figure or figure number of an amended drawing should not

be labeled as "amended." If a drawing figure is to be canceled, the appropriate

figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the

brief description of the several views of the drawings for consistency. Additional

replacement sheets may be necessary to show the renumbering of the remaining

figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the

page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant

will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

2.   The drawings are objected to under 37 CFR 1.83(a). The drawings must

show every feature of the invention specified in the claims. Therefore, the

"default gateways" and "revised data packet" must be shown or the feature(s)

canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are

required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is

being amended. The figure or figure number of an amended drawing should not

be labeled as "amended." If a drawing figure is to be canceled, the appropriate

figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the

brief description of the several views of the drawings for consistency. Additional

replacement sheets may be necessary to show the renumbering of the remaining

figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the

page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant

will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

3.   The drawings are objected to under 37 CFR 1.83(a) because they fail to

show "a 2-bit frame type included in other data field 206 comprise the rest of the

Ethernet header for the packet. The other eight bits of other data field 206 are

comprised hardware type fields and an ARP operations field" as described in the

specification (p. 12, lines 18-20). Any structural detail that is essential for a

proper understanding of the disclosed invention should be shown in the drawing.

MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR

1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the

figures appearing on the immediate prior version of the sheet, even if only one

figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the

appropriate figure must be removed from the replacement sheet, and where

necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. The replacement sheet(s) should be labeled "Replacement

Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any

portion of the drawing figures. If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the

next Office action. The objection to the drawings will not be held in abeyance.

4.   Figure 2 (3/6) should be designated by a legend such as --Prior Art--

because only that which is old is illustrated. See MPEP § 608.02(g). Corrected

drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. The replacement sheet(s) should

be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so

as not to obstruct any portion of the drawing figures. If the changes are not

accepted by the examiner, the applicant will be notified and informed of any

required corrective action in the next Office action. The objection to the drawings

will not be held in abeyance.

5.   The drawings are objected to because Fig.4 (7/17/2001), the reference

element "COMPUTER" in boxes 402 and 404 as disclosed is different from the

original drawing (Fig. 4 3/16/2001).Box 406, the element "ADDRESS FROM ADP

PACKET" where ADP packet is not disclosed in the specification. Corrected

drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the

Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the

immediate prior version of the sheet, even if only one figure is being amended.

The figure or figure number of an amended drawing should not be labeled as

"amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining

figures must be renumbered and appropriate changes made to the brief

description of the several views of the drawings for consistency. Additional

replacement sheets may be necessary to show the renumbering of the remaining

figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the

page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant

will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Specification

6.   Applicant is reminded of the proper content of an abstract of the
disclosure.

A patent abstract is a concise statement of the technical disclosure of the
patent and should include that which is new in the art to which the invention
pertains. If the patent is of a basic nature, the entire technical disclosure may be
new in the art, and the abstract should be directed to the entire disclosure. If the
patent is in the nature of an improvement in an old apparatus, process, product,
or composition, the abstract should include the technical disclosure of the
improvement. In certain patents, particularly those for compounds and
compositions, wherein the process for making and/or the use thereof are not
obvious, the abstract should set forth a process for making and/or use thereof. If
the new technical disclosure involves modifications or alternatives, the abstract
should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative
applications of the invention and should not compare the invention with the prior
art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

7.   This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

8.   The disclosure is objected to because of the following informalities:

- Fig. 1a (1/6), the HOME POUTER 110 should be corrected as HOME ROUTER 110. "Default Gateways" should also be indicated in the diagram. The connection lines should be labeled and indicated what type of connections or network is.

- Fig. 1b (2/6), the Office suggests that the Interface 140 be specified as LAN Interface and Interface 144 be specified as WAN Interface.

- Fig. 2 (3/6), the arrows as shown in Sender MAC address and Sender IP Address should be labeled or deleted.

- Fig. 4, there is a typo in flow chart box 406- "ADP packet " should be corrected as ARP packet"

- Fig. 5, examples of MAC address 502 should be provided, for example 00:00:C0:93:19:00 (6 bytes in length)

- Page 6, lines 8-11, the Office requests the Applicant to provide more clarification for " router dynamically generates a routing table from Address Resolution Protocol (ARP) Packet exchanged between the CPE and the external network". It was known that ARP maps IP address to Ethernet Address.

- Page 8, lines 12-14, the Office requests the Applicant to provide
  more clarification for "the first and second interfaces provide
  Ethernet connectivity with networks external to said router".

- Page 14, line 2, the Office requests the Applicant to provide more
  clarification for " such as every 5 minutes".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10.   Claims 1, 2, 6, 7 are rejected under 35 U.S.C. 102(e) as being anticipated

by Yoshida et al. (U.S. Patent No. 5987524).

Regarding Claim 1, Yoshida et al. discloses the limitation of an internal

network comprising a plurality of customer premises equipment (CPE) each

having an associated IP address and machine address (Abstract, lines 1-6), a

method of routing IP data packets comprising the steps of: for IP data packets

received from the internal network, comparing a destination IP address of a received IP data packet with IP addresses stored in a routing table (column 6, lines 27-29); when said destination IP address matches one of said IP addresses stored in said routing table (column 6, lines 29-31), replacing a default gateway address of said IP data packet with a machine address corresponding with said one IP address from said routing table to create a revised data packet(column 6, lines 34-37); and routing said revised data packet to said internal network for receipt another of said CPE, said another CPE having said address corresponding with said one IP address (column 6, lines 37-41).

Regarding Claim 2, Yoshida et al. discloses the limitation of 1 monitoring IP data packets sent from the plurality of CPE direct to an external communication network to detect address resolution protocol (ARP) packets sent from each of said CPE (Fig. 5; column 6, lines 9 – 12; lines 20 – 22); extracting said machine address and said IP address associated with said each CPE from the ARP packet (column 6, lines 34 – 37); and storing said machine address and said IP address in said routing table that correlates machine addresses and IP addresses with each CPE of said plurality (column 7, lines 31 – 34).

Regarding Claim 6, Yoshida et al. discloses the limitation of the extracting step is performed in response to the monitoring step detecting of said ARP packet (Fig. 5, column 6, lines 9 – 12), and the storing step is performed when an

IP address stored in the routing table differs from an IP address extracted from

the ARP packet for a corresponding CPE (column 7, lines 31 – 34).

Regarding Claim 7, Yoshida et al. discloses the limitation of updating said

routing table by performing the monitoring step substantially continuously,

performing the extracting step when the monitoring step detects said ARP packet

(column 11, lines 59 – 65), and performing the storing step when an IP address

stored in the routing table differs from an IP address extracted from the ARP

packet for a corresponding CPE (column 7, lines 31 – 34).

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

12.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Yoshida et al. (U.S. Patent No. 5987524) in view of Liu et al. (U.S. Patent No.

6574664 B1) .

Regarding Claim 5, Yoshida et al. discloses the limitation of an internal

network comprising a plurality of customer premises equipment (CPE) each

having an associated IP address and machine address (Abstract, lines 1-6), a

method of routing IP data packets comprising the steps of: for IP data packets

received from the internal network, comparing a destination IP address of a

received IP data packet with IP addresses stored in a routing table (column 6,

lines 27-29); when said destination IP address matches one of said IP addresses

stored in said routing table (column 6, lines 29-31), replacing a default gateway

address of said IP data packet with a machine address corresponding with said

one IP address from said routing table to create a revised data packet(column 6,

lines 34-37); and routing said revised data packet to said internal network for

receipt another of said CPE, said another CPE having said address

corresponding with said one IP address (column 6, lines 37-41).Yoshida et al.

does not disclose the limitation of regularly sending a request data packet to

each CPE requesting a response data packet to verify the IP addresses

associated with each CPE stored in the routing table. Liu et al. discloses of

regularly sending a request data packet to each CPE requesting a response data

packet to verify the IP addresses associated with each CPE stored in the routing

table (column 4, lines 22 – 35; column 6, lines 10 – 22). It would have been

obvious to modify Yoshida et al. to include regularly sending a request data

packet to each CPE requesting a response data packet to verify the IP

addresses associated with each CPE stored in the routing table as that taught by

Liu et al. in order to obtain or discover the IP and MAC addresses of the nodes

on a local or remote network.

13.   Claims 3, 4, 8, 9, 10, 11, 13, 14, 15, 16, 17, 21, 22 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent

No. 5987524) in view of Jain et al. (U.S. Patent No. 6047325).

        Regarding Claims 8 and 14, Yoshida et al. discloses the limitation of the

internal network comprising a plurality of customer premises devices coupled to

the router (Abstract, lines 1 – 3), and a cable modem coupling the router with an

external network (column 5, lines 7 – 8), the router comprising: a controller for

monitoring IP data packets sent from the plurality of CPE direct to the external

communication network to detect address resolution protocol (ARP) packets sent

from each of said CPE and extracting a machine address and an IP address from

the ARP packet(column 4, lines 5 – 8; lines 10 – 21); a memory for storing said

machine address and said IP address in a routing table that correlates machine

addresses and IP addresses with each CPE of said plurality (column 3, lines 49 –

50, inherent router unit has memory).

Yoshida et al. does not disclose the controller, for each IP data packet received

from each CPE, compares a destination IP address of said IP data packet with

the IP addresses stored in said routing table, and when said destination IP

address matches one of said IP addresses stored in said routing table, replaces

a default gateway address of said IP data packet with said machine address

corresponding with said one IP address from said routing table to create a

revised data packet, and places said revised data packet onto an internal

network for receipt by one of said CPE, said one CPE having said machine

address corresponding with said one IP address.

Jain et al. discloses the limitation of the controller, for each IP data packet

received from each CPE, compares a destination IP address of said IP data

packet with the IP addresses stored in said routing table (column 4, lines 10 –

14), and when said destination IP address matches one of said IP addresses

stored in said routing table, replaces a default gateway address of said IP data

packet with said machine address corresponding with said one IP address from

said routing table to create a revised data packet (column 4, lines 14 – 26), and

places said revised data packet onto an internal network for receipt by one of

said CPE, said one CPE having said machine address corresponding with said

one IP address (column 4, lines 21 – 25). It would have been obvious to modify

Yoshida et al. to include the controller, for each IP data packet received from

each CPE, compares a destination IP address of said IP data packet with the IP

addresses stored in said routing table, and when said destination IP address

matches one of said IP addresses stored in said routing table, replaces a default

gateway address of said IP data packet with said machine address corresponding

with said one IP address from said routing table to create a revised data packet,

and places said revised data packet onto an internal network for receipt by one of

said CPE, said one CPE having said machine address corresponding with said

one IP address as that taught by Jain et al. in order to permit traffic routing

to/from both external and internal networks.

Regarding Claims 9 and 13, Yoshida et al. discloses the limitation of a router as claimed (Abstract, lines 1 – 3). But he fails to disclose explicitly the router comprising first and second interfaces coupled with the controller, the first and second interfaces providing Ethernet connectivity with networks external to said router, wherein the first interface is coupled to said internal network, and the second interface is coupled to said cable modem for communicating with the external network. Jian et al. discloses the limitation of the router comprising first and second interfaces coupled with the controller (column 4, lines 5 – 8, lines 10 –13), the first and second interfaces providing Ethernet connectivity with networks external to said router (column 4, lines 5 – 10), wherein the first interface is coupled to said internal network (column 4, lines 5 – 6), and the second interface is coupled to said cable modem for communicating with the external network (column 4, lines 7 – 13). It would have been obvious to modify Yoshida et al. to include the router comprising first and second interfaces coupled with the controller, the first and second interfaces providing Ethernet connectivity with networks external to said router, wherein the first interface is coupled to said internal network, and the second interface is coupled to said cable modem for communicating with the external network as that taught by Jain et al. in order to permit traffic routing to/from both external and internal networks.

Regarding Claims 3, 10, 15, Yoshida et al. discloses the limitation of the router as claimed (Abstract, lines 1 – 3). But he fails to disclose explicitly the

controller routes the IP data packets received at the first interface from the CPEs
to the external network when said destination IP address does not match one of
said IP addresses stored in said routing table. Jian et al. discloses the limitation
of the controller routes the IP data packets received at the first interface from the
CPEs to the external network when said destination IP address does not match
one of said IP addresses stored in said routing table (Column 4, lines 10 – 33). It
would have been obvious to modify Yoshida et al. to include the controller routes
the IP data packets received at the first interface from the CPEs to the external
network when said destination IP address does not match one of said IP
addresses stored in said routing table as that taught by Jain et al. in order to
permit traffic routing to/from both external and internal networks.

Regarding Claims 4, 11, 16, Yoshida et al. discloses the limitation of the
router as claimed (Abstract, lines 1 – 3). But he fails to disclose explicitly the
controller routing IP data packets received at the second interface from the
external network directly to the first interface for receipt by the internal network.
Jian et al. discloses the limitation of the controller routing IP data packets
received at the second interface from the external network directly to the first
interface for receipt by the internal network (column 4, lines 10 – 30; lines 47 –
50). It would have been obvious to modify Yoshida et al. to include the controller
routing IP data packets received at the second interface from the external
network directly to the first interface for receipt by the internal network as that

taught by Jain et al. in order to permit traffic routing to/from both external and
internal networks.

Regarding Claim 17, Yoshida et al. discloses the limitation of providing
each CPE an IP address from an external network server performing a dynamic
host configuration protocol (DHCP) (column 11, lines 29 – 34).

Regarding Claims 21, Yoshida et al. discloses the limitation of the
extracting step is performed in response to the monitoring step detecting of said
ARP packet (Fig. 5, column 6, lines 9 – 12), and the storing step is performed
when an IP address stored in the routing table differs from an IP address
extracted from the ARP packet for a corresponding CPE (column 7, lines 31 –
34).

Regarding Claim 22, Yoshida et al. discloses the limitation of updating
said routing table by performing the monitoring step substantially continuously,
performing the extracting step when the monitoring step detects said ARP packet
(column 11, lines 59 – 65), and performing the storing step when an IP address
stored in the routing table differs from an IP address extracted from the ARP
packet for a corresponding CPE (column 7, lines 31 – 34).

14.   Claims 12, 18 – 20 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Yoshida et al. (U.S. Patent No. 5987524) as applied to claims

3, 4, 8, 9, 10, 11, 13, 14, 15, 16, 17, 21, 22 above, and further in view of Liu et al.

(U.S. Patent No. 6574664).

Regarding Claims 12, 18 – 20, Yoshida et al. discloses the limitation of the

router as claimed (Abstract, lines 1 – 3). But he fails to disclose explicitly the

controller regularly sending a request data packet to each CPE requesting a

response data packet and verifies the IP addresses associated with each CPE

stored in the routing table. Jian et al. discloses a controller processing packets

received through the interface according to information found in the address

resolution protocol (ARP) table. It would have been obvious to modify Yoshida et

al. to include a controller processing packets received through the interface

according to information found in the address resolution protocol (ARP) table.as

that taught by Jain et al. in order to permit fast IP address and MAC address

translation. But both Yoshida et al. and Jian et al. fail to disclose explicitly the

controller regularly sending a request data packet to each CPE requesting a

response data packet and verifies the IP addresses associated with each CPE

stored in the routing table. Liu et al. discloses the limitation of the controller

regularly sending a request data packet to each CPE requesting a response data

packet and verifies the IP addresses associated with each CPE stored in the

routing table. Jian et al. discloses the limitation of the controller regularly sending

a request data packet to each CPE requesting a response data packet and

verifies the IP addresses associated with each CPE stored in the routing table

(column 4, lines 22 – 25; column 6, lines 11 – 22). It would have been obvious to

modify Yoshida et al. to include the controller regularly sending a request data

packet to each CPE requesting a response data packet and verifies the IP

addresses associated with each CPE stored in the routing table as that taught by

Jain et al. in order to IP address returned to the local IP and MAC address

discovery procedure and stored in an IP and MAC databases that is accessible

by other nodes or application programs.

Conclusion

15.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Andrew C Lee whose telephone number is

(571) 272-3131. The examiner can normally be reached on Monday through

Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The

fax phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).
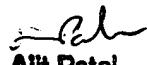
Ajit Patel
Primary Examiner

ACL   31 August 2004